



PATENT

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In re application of:  
Tano et al.

Serial No.: 09/761,915

Examiner Vy Bui

Filed: January 17, 2001

Group Art Unit 3731

For: Membrane Eraser  
(Reissue Tano Patent No. 5,921,998):

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Alexandria, VA 22313

**APPEAL BRIEF UNDER 37 CFR §41.37**

Applicants hereby resubmit their Appeal Brief, appealing the Final Rejection of claims 1, 3, 4, 7, 9-15, and 21-27 made in the Patent Office Action mailed July 19, 2004.

**(1) Real Party in Interest**

The real party in interest in this application is Synergetics, Inc., of 3845 Corporate Centre Drive, St. Charles, Missouri 63304, by an Assignment recorded at Reel No. 010310, and Frame No. 0376.

**(2) Related Appeals and Interferences**

Applicant's attorneys are not aware of any related appeals and/or interferences.

**(3) Status of Claims**

Claims 1, 3, 4, 7, 9-15, and 21-33 are pending in the application.

Claims 28-33 have been allowed.

Claims 2, 5, 6, 8, and 16-20 have been cancelled.

Claims 1, 3, 4, 7, 9-15, and 21-27 have been given a Final Rejection.

**(4) Status of Amendments**

No amendments have been filed following the Final Rejection mailed July 19, 2004.

**(5) Summary of the Claimed Subject Matter**

**Independent Claim 1**

The subject matter of the invention defined by claim 1 is a membrane eraser that is used for ophthalmic surgery (specification page 1, lines 3-7). The eraser comprises a grip portion 1 (specification page 4, line 33); a rod shaped body 2 having opposite first

20 and second 22 ends, with the first end being attached to the grip portion (specification page 4, lines 34-35). The second end of the body extends away from the grip portion (specification page 5, lines 31-32).

An elastic body 3 having a hollow interior and opposite proximal and distal ends receives the rod shaped body second end at the proximal end of the elastic body (specification page 6, lines 12-15 and 19-21). The elastic body distal end has a tapered tip 4 that extends away from the rod shaped body (specification page 6, lines 15-18 and page 7, lines 13-20).

A plurality of hard, fine grains 5 are fixed on the tapered tip of the elastic body (specification page 7, lines 27-30). The fine grains are located in a range from an end portion of the tip, with the fine grains being configured for removal of membrane tissue on a retina of an individual (specification page 9, lines 17-26).

#### **Independent Claim 9**

The subject matter of the invention defined by independent claim 9 is an ophthalmic treatment tool (specification page 1, lines 3-7) that comprises a grip 1 (specification page 4, line 33); a rod shaped body 2 having opposite first 20 and second 22 ends, with the first end being attached to the grip (specification page 4, lines 34-35), and the second end extending away from the grip (specification page 5, lines 31-32).

An elastic body 3 is attached to the rod shaped body second end and has a tapered tip 4 extending away from the rod shaped body (specification page 6, lines 15-18 and page 7, lines 13-20).

A plurality of hard, fine grains 5 are fixed on the tapered tip of the elastic body (specification page 7, lines 27-30). The fine grains are located on the tip in a range from an end portion of the tip (specification page 9, lines 17-26).

The elastic body has a general cylindrical shape with opposite proximal and distal ends and a hollow interior (specification page 6, lines 12-15 and lines 19-21), and the proximal end of the elastic body is fitted onto the second end of the rod shaped body with the distal end of the elastic body being cut on a bevel forming the tapered tip (specification page 7, lines 13-20).

### **Independent Claim 12**

The subject matter of the invention defined by independent claim 12 includes an ophthalmic treatment tool (specification page 1, lines 3-7) that comprises a grip 1 (specification page 4, line 33); a rod shaped body 2 having opposite first 20 and second 22 ends, with the rod shaped body first end being attached to the grip (specification page 4, lines 34-35), and the rod shaped body second end having a slender line portion extending away from the grip (specification page 5, lines 1-3 and lines 31-32).

An elastic body 3 having a hollow, tubular shape with opposite proximal and distal ends (specification page 6, lines 12-15) receives the slender line portion of the rod shaped body at an opening of the proximal end of the elastic body (specification page 6, lines 19-21). The second end of the elastic body is spaced from the slender line portion of the rod shaped body and extends to a distal end of the elastic body having a taper 4 (specification page 6, line 34-page 7, line 3).

A plurality of hard, fine grains 5 are fixed on the distal end of the elastic body (specification page 7, lines 27-30), with the fine grains being located in a range on the distal end portion of the elastic body (specification page 9, lines 17-26).

#### **Independent Claim 21**

The subject matter of the invention defined by independent claim 21 includes an ophthalmic membrane eraser (specification page 1, lines 3-7) that comprises a tool 1, 2 having opposite proximal and distal ends, with a rigid portion of the tool being adjacent the proximal end (specification page 4, lines 32-35) and an elastic, flexible tapered tip portion 3 of the tool being adjacent the tool distal end. The elastic portion of the tool is attached to the rigid portion of the tool (specification page 6, lines 19-21) and projects from the rigid portion of the tool to the tool distal end (specification page 5, lines 8-11). The elastic portion of the tool has a tapered tip 4 at the tool distal end (specification page 6, line 34-page 7, line 3).

A plurality of hard, fine grains 5 are fixed to the elastic portion of the tool (specification page 7, lines 27-30). The fine grains are fixed to the elastic portion of the tool only located in a range from an end portion of the tapered tip and are absent from a remainder of the elastic portion of the tool so as not to detract from the flexibility of the remainder of the elastic portion of the tool (specification page 9, lines 17-26).

#### **Independent Claim 26**

The subject matter of the invention defined by independent claim 26 includes a membrane eraser used for ophthalmic surgery (specification page 1, lines 3-7) that comprises a grip portion 1 (specification page 4, line 33); a rod shaped body 2 attached to one end of the grip portion (specification page 4, lines 34-35); and an elastic body 3

fitted toward the front end of the rod shaped body and having a tapered front tip 4 (specification page 6, lines 15-18 and page 7, lines 13-20).

A plurality of hard, inorganic fine grains 5 are fixed on the tapered front tip of the elastic body (specification page 7, lines 27-30). The grains are located in a range from an end portion of the front tip for removal of membrane tissue on a retina of an individual (specification page 9, lines 17-26).

### **Independent Claim 28**

The subject matter of the invention defined by independent claim 28 includes a membrane eraser used for ophthalmic surgery (specification page 1, lines 3-7) that comprises a grip portion 1 (specification page 4, line 33); a rod shaped body attached to one end of the grip portion (specification page 4, lines 34-35); and an elastic body that is fitted toward a front end of the rod shaped body and has a tapered front tip 4 (specification page 6, lines 15-18 and page 7, lines 13-20).

A plurality of hard, inorganic fine grains 5 are fixed on the tapered front tip of the elastic body (specification page 7, lines 27-30). The fine grains are located in a range from an end portion of the front tip for removal of membrane tissue on a retina of an individual, the fine grains being located in a range of 0.5 mm to 3.0 mm (specification page 9, lines 17-26); and the tapered front tip being hollow (specification page 7, lines 13-26).

### **(6) Grounds of Rejection to be Reviewed on Appeal**

i) Claim 26 is rejected under 35 U.S.C. §102(b) as being anticipated by the U.S. Patent of Varaine No. 5,118,291.

ii) Claims 1, 3, 4, 7, 9-15, and 21-27 are rejected under 35 U.S.C. §251.

## **(7) Argument**

### **Rejection Under 35 U.S.C. §102**

Claim 26 of the application was given a final rejection under 35 U.S.C. §102 in view of the disclosure of the U.S. patent of Varaine No. 5, 118,291. However, the Varaine patent does not disclose the subject matter of the invention recited in claim 26, and therefore the disclosure of the patent fails to anticipate that subject matter.

It is a fundamental tenet of patent law that an anticipation rejection requires identity of the invention in the prior art relied on in rejecting the claims.

For a prior-art reference to anticipate, every element of the claimed invention must be identically shown in a single reference. In re Bond, 910 F.2d. 831, 15 U.S.P.Q. 2d. 1566 (Fed. Cir. 1990).

Among the novel features of the invention recited in claim 26, the claim includes the features of a “membrane eraser used for a ophthalmic surgery” having “a plurality of hard, inorganic fine grains...located in a range from an end portion of a front tip for removal of membrane tissue on a retina of an individual”. The subject matter of claim 26 recited above is found in both the preamble of the claim and in the counts of a claim. Therefore, the entire claim, including the preamble, defines the elements of the claimed invention.

The Varaine reference discloses an instrument used in cleaning teeth. The Varaine reference does not identically show the “membrane eraser used for ophthalmic

surgery” having a plurality of fine grains that are located in a range from an end portion of the eraser tip “for the removal of membrane tissue on a retina” as set forth in claim 26. The reference does not identically show every element of the claimed invention as required by the above cited case law. The Varaine instrument is not a membrane eraser, and does not have fine grains located on a tip for removing retinal membranes. It is therefore submitted that the rejection of claim 26 as being anticipated by the Varaine referenced is made in error and should be reversed and the claim allowed.

### **Claim Rejections Under 35 U.S.C. §251**

Claims 1, 3-4, 7, 9-15, and 21-27 were rejected under 35 U.S.C. §251 as being an improper recapture of claimed subject matter that was surrendered in the prosecution of the application for the patent upon which the present reissue application is based.

In the rejection it is contended that claim 1 of the original patent application was amended to recite “a hollow tapered front tip” and “grains are located in a range of 0.5 mm to 3.0 mm from an end portion of said front tip” to overcome an anticipation rejection in view of the U.S. Patent of Shimizu No. 3,809,101. It is also contended that an argument was presented in the prosecution of the patent application that the Shimizu patent does not disclose the two features cited above, and therefore amended claim 1 was defined over Shimizu. The rejection states that the omission of the features quoted above from independent claims 1, 9, 12 and 21 of the present application presents an improper recapture of broadened claimed subject matter surrendered in the application for the patent upon which the present reissue application is based.

It is respectfully submitted that the above set forth recount of the prosecution history of the patent upon which the present reissue application is based is not accurate. Claim 1 was amended to recite “a hollow tapered front tip” and “said grains are located in a range of 0.5 mm to 3.0 mm from an end portion of said front tip” among other amendments made to the claim. However, the representation of the arguments made during the application prosecution is not accurate. The argument distinguishing the Shimizu reference stated that the subject matter claimed was:

“clearly distinguished from the nail file filing an individual’s nails as shown in Shimizu which neither comprises a hollow tapered front tip of an elastic body nor does the same teach limiting the location of the grains to the range presently claimed and instead teaches only the utilization of an abrasive sheet 9 which extends substantially the entire length of the holding member”.

There is no mention of the specific 0.5 mm to 3.0 mm range in the prosecution argument distinguishing the Shimizu reference. Thus, there is no evidence in the prosecution history that the specific range of 0.5 mm to 3.0 mm was added to claim 1 to distinguish the subject matter claimed from Shimizu. The only evidence provided by the REMARKS portion of the amendment states that Shimizu neither comprises a hollow tapered front tip nor teaches limiting the location of the grains to a range.

“Reissued claims that are broader in certain respects and narrower in others may avoid the effect of the recapture rule.” In re Clement, 131 F. 3d. 1464, 1470, 45 U.S.P.Q. 2d 1161, 1165 (Fed. Cir. 1997).

The recapture rule does not apply where there is no evidence that amendment of the originally filed claims was in any sense an admission that the scope of that claim was not in fact patentable. Seattle Box Co. v. Industrial Crating and Packaging, Inc., 731 F. 2d 818, 826, 221 U.S.P.Q. 568, 574 (Fed. Cir. 1984).

There is no evidence presented that the limitation of 0.5 mm to 3.0 mm was added to claim 1 of the original patent application to avoid the Shimizu reference. Claim 1 was amended to include the limitation of the grains being located in a range from an end portion of the front tip to distinguish the subject matter of the invention from the Shimizu reference. As set forth in the REMARKS, the Shimizu nail file did not teach limiting the location of the grains to the range, but instead teaches only the utilization of an abrasive sheet which extends substantially the entire length of the holding member of the nail file. There was no argument that the specific 0.5 mm to 3.0 mm range was patentable, only that a range, distinguished from the entire instrument length, was patentable. Thus, it is not necessary that the independent claims of the reissue application include in their limitations the specific 0.5 mm to 3.0 mm range.

Claim 1 of the application includes the limitation of the fine-grains being located in a range from an end portion of the tip. Claim 9 includes the limitation of the fine-grains being located in a range from an end portion of the tip. Claim 12 includes the limitation of the elastic body having a hollow, generally tubular shape, and the fine-grains being located in a range on said distal end portion of the elastic body. Claim 21 includes the limitations of a flexible tapered tip and the fine-grains being fixed to the elastic portion of the tool located in a range from an end portion of the tapered tip.

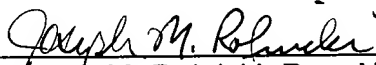
Claim 26 includes the limitation of the grains being located in a range from an end portion of the front tip. Thus, each of the rejected independent claims 1, 9, 12, 21, and 26 included the limitation of the fine grains being located in a range from an end portion of the tip, which distinguishes the independent claims from the Shimizu nail file that discloses an abrasive sheet that extends substantially the entire length of the holding member of the nail file.

It is respectfully submitted that claims 1, 9, 12 and 21 and their dependent claims 3, 4, 7, 10, 11, 13-15, and 22-25 are in conformance with 35 U.S.C. §251, and the rejections of the claims should be reversed and the claims allowed.

In addition, claim 26 conforms to the language of claim 1 of the issued Patent No. 5,921,998 except for the absence of the word "hollow" in describing the tapered front tip and the absence of the words "of 0.5 mm to 3.0 mm" in describing the range of the fine-grains. For the reasons set forth above with regard to claim 1, it is respectfully submitted that the rejections of claim 26 and its dependent claim 27 are made in error and should be reversed and the claims allowed.

#### **(8) Conclusion**

For the reasons set forth herein, it is respectfully submitted that the Final Rejections of claims 1, 3, 4, 7, 9-15, and 21-27 are made in error and should be reversed and the claims allowed.

  
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**(9) Claims Appendix**

1. A membrane eraser used for ophthalmic surgery, comprising:

a grip portion;

a rod shaped body having opposite first and second ends, said first end being attached to [[one end of]] said grip portion, said second end extending away from said grip portion;

an elastic body having opposite proximal and distal ends and a hollow interior, said hollow interior at said proximal end receiving said second end of said [[fitted along a direction toward a front end of said]] rod-shaped body, said distal end having a tapered tip extending away from said rod shaped body [[to the front end side thereof and having a hollow tapered front tip]]; and

a plurality of hard, [[inorganic]] fine-grains fixed on said tapered [[front]] tip of said elastic body, said fine-grains being located in a range from an end portion of said tip, said fine-grains being configured [[wherein said grains are located in a range of .05 mm to 3.0 mm from an end portion of said front tip]] for removal of membrane tissue on a retina of an individual.

2. (Cancelled).

3. A membrane eraser according to claim 1, wherein said hard [[inorganic]] fine-grains comprise grains having a range in diameter from 3  $\mu$ m to 80  $\mu$ m.

4. A membrane eraser according to claim 1, wherein said hard [[inorganic]] fine-grains comprise diamond particles.

5. (Cancelled).

6. (Cancelled).

7. A membrane eraser according to claim 1, wherein said grains are located in a range of 0.5 mm to 3.0 mm from said distal end of the elastic body.

8. (Cancelled).

9. An ophthalmic treatment tool comprising:

a grip;

a rod shaped body having opposite first and second ends, said first end attached to said grip, said second end extending away from said grip;

an elastic body attached to said second end of said rod shaped body, said elastic body having a tapered tip extending away from said rod shaped body;

a plurality of hard, fine-grains fixed on said tapered tip of said elastic body, said fine-grains being located in a range from an end portion of said tip; and

said elastic body has a general cylindrical shape with opposite proximal and distal ends and a hollow interior, said proximal end is fitted onto said second end of said rod shaped body, said distal end is cut on a bevel forming said tapered tip.

10. The ophthalmic treatment tool according to claim 9 wherein said rod shaped body has a slender line portion at said second end, the elastic body is fitted on said slender line portion.

11. The ophthalmic treatment tool according to claim 10 wherein said slender line portion is formed in an angle relative to said rod shaped body.

12. An ophthalmic treatment tool comprising:  
a grip;  
a rod shaped body having opposite first and second ends, said first end attached to said grip, said second end having a slender line portion extending away from said grip;

an elastic body having a hollow, generally tubular shape with opposite proximal and distal ends, said proximal end having an opening receiving said slender line portion therein, said second end being spaced from said slender line portion and extending to a distal end having a taper; and

a plurality of hard, fine-grains fixed on said distal end of said elastic body, said fine-grains being located in a range on said distal end portion.

13. The ophthalmic treatment tool according to 12 wherein said slender line portion is formed in an angle relative to said rod shaped body.

14. The ophthalmic treatment tool according to claim 12 wherein said fine-grains are located in a range of 0.5 mm to 3.0 mm from a distal end of the elastic body.

15. The ophthalmic treatment tool according to claim 12 wherein said fine-grains have a range in diameter from 3  $\mu$ m to 80  $\mu$ m.

16-20. (Cancelled).

21. An ophthalmic membrane eraser comprising:  
a tool having a length with opposite proximal and distal ends, a rigid portion of the tool adjacent the tool proximal end and an elastic, flexible tapered tip portion of the tool adjacent the tool distal end, the elastic portion of the tool is attached to the rigid portion of the tool and projects from the rigid portion of the tool for a portion of the length of the tool to the tool distal end, the elastic portion of the tool has a tapered tip at the tool distal end; and

a plurality of hard, fine-grains fixed to the elastic portion of tool, the fine-grains are fixed to the elastic portion of the tool only located in a range from an end portion of the tapered tip and are absent from a remainder of the elastic portion of the tool so as not to detract from the flexibility of the remainder of the elastic portion of the tool.

22. The membrane eraser of claim 21, wherein:  
the elastic portion of the tool is flexible along the portion of the length of the tool that the elastic portion projects from the rigid portion.

23. The membrane eraser of claim 21, wherein:

the plurality of hard, fine-grains are fixed to only an exterior surface of the elastic portion of the tool adjacent the distal end of the tool.

24. The membrane eraser of claim 21, wherein:

the rigid portion of the tool includes a grip at the tool proximal end and a rod-shaped body attached to the grip and projecting from the grip.

25. The membrane eraser of claim 21, wherein:

the elastic portion has a beveled surface adjacent the distal end of the tool and the hard, fine-grains are fixed only on the beveled surface.

26. A membrane eraser used for ophthalmic surgery, comprising:

a grip portion;

a rod shaped body attached to one end of said grip portion;

an elastic body fitted along a direction toward a front end of said rod shaped body to the front end side thereof and having a tapered front tip; and,

a plurality of hard, inorganic fine-grains fixed on said tapered front tip of said elastic body wherein said grains are located in a range from an end portion of said front tip for removal of membrane tissue on a retina of an individual.

27. A membrane eraser according to Claim 26, wherein said fine-grains are located in a range of 0.5 mm to 3.0 mm.

28. A membrane eraser used for ophthalmic surgery, comprising:  
a grip portion;  
a rod shaped body attached to one end of said grip portion;  
an elastic body fitted along a direction toward a front end of said rod shaped body to the front end side thereof and having a tapered front tip;  
a plurality of hard, inorganic fine-grains fixed on said tapered front tip of said elastic body wherein said grains are located in a range from an end portion of said front tip for removal of membrane tissue on a retina of an individual;  
said fine-grains are located in a range of 0.5 mm to 3.0 mm; and,  
said tapered front tip is hollow.

29. A membrane eraser according to Claim 28, wherein said elastic body comprises silicone rubber.


30. A membrane eraser according to Claim 28, wherein said hard inorganic fine-grains comprise grains having a range in diameter from 3 to 80  $\mu\text{m}$ .

31. A membrane eraser according to Claim 28, wherein said hard inorganic fine-grains comprise diamond particles.

32. A membrane eraser according to Claim 28, wherein said rod shaped body comprises titanium.

33. A membrane eraser according to Claim 28, wherein said hard inorganic fine-grains are fixed by a silicone base adhesive to said front tip.

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	Art Unit	3731
	Examiner Name	Vy Bui
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Firm Name	Thompson Coburn LLP		
Signature	<i>Joseph M. Rolnicki</i>		
Printed name	Joseph M. Rolnicki		
Date	January 25, 2006	Reg. No.	32,653

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